

P-9.1 Predict the behavior of fluids (including changing forces) in pneumatic and hydraulic systems.

Revised Taxonomy Level 2.5B Infer (predict) conceptual knowledge
Students did not address this indicator in physical science

It is essential for students to

- ❖ Understand that the term fluid applies to both liquids and gases because of the properties and behaviors that are common to both
 - Pneumatic systems involve gases
 - Hydraulic systems involve liquids
- ❖ Understand the properties of fluids
 - Buoyant force
 - Streamline flow
- ❖ Compare how open and closed fluid systems are different

Assessment

As the verb for this indicator is Infer (predict), therefore, the major focus of assessment should be for students to draw a logical conclusion from presented information. Because the indicator is written as conceptual knowledge, assessments should require that students understand the “interrelationships among the basic elements within a larger structure that enable them to function together.” In this case, assessments must show that students understand how the behavior of fluids depends on the properties of buoyant force and streamline flow. Students should be able to use these properties to predict the behavior of fluids in familiar situations.